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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/523,299

08/18/2005

Robert Lahmann

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EXAMINER

MARC, MCDIEUNEL

ART UNIT

PAPER NUMBER

3664

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	10/523,299		LAHMANN ET AL.	
	Examiner		Art Unit	
	MCDIEUNEL MARC		3664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 10-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. Claims 10-18 are pending.
2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
4. Claim 10 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams (US 20060253239 A1).

As per claims 10, Williams teaches substantially an apparatus for detecting a rollover event (see section [0003]), comprising: at least one first acceleration sensor in a vertical direction of a vehicle (see fig. 1, element 124); at least one second acceleration sensor in at least one horizontal direction of the vehicle (see fig. 1, element 128 which has been considered mounted

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vertically just like element 124); and a processor for detecting an inertial event as a function of a first signal of the at least one second acceleration sensor (see fig. 2, element 116), and after detection of the inertial event (see section [0005]), evaluating a second signal from the at least one first acceleration sensor for detecting the rollover event (see fig. 2 and fig. 6). Williams does not teach explicitly or exactly a processor triggering a restraint device as a function of the first signal and the second signal.

However, implicitly teaches a system that ECU 116 that receive input from signal input 128 and 138, which being broadly interpreted as a processor that triggering a restraint device as a function of the first signal and the second signal (see fig. 2).

It would have been obvious to a person of ordinary skill in the art at the time of the invention to shed light into figure 2, because this rationale has been broadly interpreted vis-a-vis the limitation of triggering a restrain device so that can clearly understand how this elaboration on figure 2 of Williams et al. equate to combination, thereby shading light of the ECU and the input interring the device of the apparatus for detecting a rollover event as a whole.

As per claim 18, Williams teaches that further comprising at least one plausibility sensor (see fig. 2, element 138, which being considered as plausibility).

5. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Williams as applied to claim 10 above, and further in view of Ide et al., (US 6,167,335).

As per claim 11, Williams teaches essential features substantially as claimed, but fail to teach a system wherein the processor detects the inertial event one of in the form of the deployment of the restraint device in the event of one of a head-on crash and a lateral crash and as a function of an acceleration signal in one of a longitudinal direction of the vehicle and a transverse direction of the vehicle.

Ide et al., teaches a crash mode determining unit comprises first and second acceleration sensors wherein the processor detects the inertial event one of in the form of the deployment of the restraint device in the event of one of a head-on crash and a lateral crash and as a function of an acceleration signal in one of a longitudinal direction of the vehicle and a transverse direction of the vehicle (col. 2, lines 46-51).

It would have been obvious to a person of ordinary skill in the art at time of the invention to modify the rollover event teaching of Williams with the head-on crash of Ide et al., because this modification would have provided the head-on collision teaching into Williams' teaching, thereby improving the efficiency the reliability of rollover event.

6. Claims 12 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams as applied to claim 10 above, and further in view of Schubert et al. (US 7269483 B2)

As per claim 12, Williams teaches wherein the processor performs the evaluation by examining characteristics (see section [0034], comparing values being considered as examining),

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but Williams et al. does not specifically teach a system comprising an acceleration in the vertical direction of the vehicle in the inertial event is negative and has a positive gradient.

Schubert et al. teaches substantially a system comprising an acceleration in the vertical direction of the vehicle in the inertial event is negative and has a positive gradient (see col. 3, line 38 – to – col. 4, line -23 and fig. 4).

It would have been obvious to a person of ordinary skill in the art at time of the invention to modify the rollover event teaching of Williams et al. with the even discriminator of Schubert et al., because this modification would have provided a new event algorithm which contains positive and negative number teaching into Williams' et al. teaching, thereby improving the efficiency the reliability of rollover event.

As per claim 17, Williams teaches essential features substantially as claimed, but fail to teach a system wherein in an absence of a detection of the rollover event, the processor is capable, after the first inertial event, of monitoring for a new inertial event.

Schubert et al. teaches substantially a system wherein in an absence of a detection of the rollover event, the processor is capable, after the first inertial event, of monitoring for a new inertial event (see col. 3, line 38 – to – col. 4, line -23, wherein If an additional set of rollover event data becomes available and the currently configured system fails to correctly discriminate the event, the only change required to achieve correct discrimination for all known events is to calibrate an additional version of the algorithm for the new event).

It would have been obvious to a person of ordinary skill in the art at time of the invention to modify the rollover event teaching of Williams with the even discriminator of Schubert et al.,

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because this modification would have provided a new event algorithm teaching into Williams' et al. teaching, thereby improving the efficiency the reliability of rollover event.

7. Claims 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Williams in view of Schubert et al. as applied to claim 12 above, and further in view of Ide et al.

As per claims 13 and 14, Williams and Schubert et al. teach essential features substantially as claimed, but they fail to teach a system a wherein the processor evaluates at least one of an acceleration in the transverse direction of the vehicle and a rotation rate about a vehicle longitudinal rate, in order to detect a lateral motion; and wherein the processor evaluates a vehicle acceleration in the longitudinal direction of the vehicle.

Ide et al., teaches a wherein the processor evaluates at least one of an acceleration in the transverse direction of the vehicle and a rotation rate about a vehicle longitudinal rate, in order to detect a lateral motion; and wherein the processor evaluates a vehicle acceleration in the longitudinal direction of the vehicle (see col. 2, lines 31-51, wherein having velocity changes that being greater than...has been interpreted as longitudinal rate).

It would have been obvious to a person of ordinary skill in the art at time of the invention to modify the rollover event teachings of Williams and Schubert et al. with the head-on crash of Ide et al., because this modification would have provided a detected acceleration teaching into Williams' et al. teaching, thereby improving the efficiency the reliability of rollover event.

As per claim 15, Williams and Shubert et al. teach essential features substantially as claimed, but fail to teach a system a low-pass filter for filtering an acceleration in the vertical direction of the vehicle, in order to extract a gravitational acceleration.

Ide et al., teaches a low-pass filter for filtering an acceleration in the vertical direction of the vehicle, in order to extract a gravitational acceleration (see fig. 13, element 151).

It would have been obvious to a person of ordinary skill in the art at time of the invention to modify the rollover event teaching of Williams and Shubert et al. with the head-on crash of Ide et al., because this modification would have provided a LPF teaching into Williams' et al. teaching, thereby improving the efficiency the reliability of rollover event.

As per claim 16, Williams teaches wherein the at least one first acceleration sensor includes an offset control which is embodied as slow (see section [0005] wherein deceleration has been considered as slow).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MCDIEUNEL MARC whose telephone number is (571)272-6964. The examiner can normally be reached on 6:30-5:00 Mon-Thu.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Khoi Tran can be reached on (571) 272-6919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/McDieunel Marc/

Examiner, Art Unit 3664

Thursday, October 30, 2008

/KHOI TRAN/

Supervisory Patent Examiner, Art Unit 3664